

JEFFERSON SMURFIT CORPORATION D-GRAPHICS DIVISION

December 2, 1994

3389 POWERS AVENUE JACKSONVILLE, FL 32207 TELEPHONE: 904/733-4020

K: 904/733-438

Mr. C. H. Fancy, P.E. Chief Bureau of Air Regulation Department of Environmental Protection Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400 RECEIVED DEC 5 1994

Bureau of Air Regulation

Re: Press #4 Relocation Project With Total Enclosure

Dear Mr. Fancy:

Enclosed are three copies of an "Application To Operate/Construct Air Pollution Sources" for the D-Graphics press #4 relocation project that will include a total enclosure of both press #4 & #5. This project was presented at a November 22, 1994 meeting in your offices. We are confident the preliminary engineering concepts will hold true through detailed engineering, and the system as requested in this application will accomplish 100% capture and 95% destruction of VOC's from press #4 & #5.

If you have any questions regarding this application, please call me at 733-4020; Bob Dinehart, our Division Engineer, at 708-260-3574; or Jim Manning at 269-7012.

Sincerely,

Douglas V. Turner Plant Manager

ouglas Vote

D-Graphics

Attachments

cc: Jim Manning, P.E.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEA Form 4.	
Form Title	_ !
Effective Date	!
DER Approximon No	:

	APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES
sou	CE TYPE: Rotogravure Printing Press [] New ¹ [X] Existing ¹
APP	ICATION TYPE: [X] Construction [] Operation [X] Modification
сом	ANY NAME: D-Graphics, Div of Jefferson Smurfit Corp. COUNTY: Duval
Ide	tify the specific emission point source(s) addressed in this application (i.e. Lime
Kil	No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired)
Sou	CE LOCATION: Street 3389 Powers Avenue City Jacksonville
	UTM: East North
•. •	Latitude 30 ° 15 ' 55 "N Longitude 81 ° 37 ' 18 "W
APP	ICANT NAME AND TITLE: Douglas V. Turner, Plant Manager
APP	ICANT ADDRESS: 3389 Powers Avenue, Jacksonville, Florida 32207
	SECTION I: STATEMENTS BY APPLICANT AND ENGINEER
Α.	APPLICANT D. C.
	D-Graphics-Div of I am the undersigned owner or authorized representative* of Jefferson Smurfit Corp.
	I certify that the statements made in this application for a <u>Contruction</u> permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.
*A t	ach letter of authorization Signed: Daughov. June
	Douglas V. Turner, Plant Manager . Name and Title (Please Type)
	Date: 12/2/94 Telephone No. 904-733-4020
В.	PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)
	This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

1 See Florida Administrative Code Rule 17-2.100(57) and (104)

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an effluent that complies with rules and regulations of the de	s, when properly maintained and operated, will discharge all applicable statutes of the State of Florida and the partment. It is also agreed that the undersigned will
	wner, the applicant a set of instructions for the proper e pollution control facilities and, if applicable,
pollution sources.	$\mathcal{L}_{\mathcal{L}}}}}}}}}}$
Maria & A Rolling	Signed france . Meanney
	James L. Manning
	Name (Please Type)
A CONTRACTOR OF THE CONTRACTOR	Company Name (Please Type)
Commenter of the Commen	5077 Toproyal Lane, Jacksonville, Fl. 32277 Mailing Address (Please Type)
rida Registration No. 36124	Date: 12/2/94 Telephone No. 904-744-7005
SECTION II	• •
and expected improvements in so	of the project. Refer to pollution control equipment, urce performance as a result of installation. State in full compliance. Attach additional sheet if
To relocate Press #4 adjacent to	Press #5 including foundation enhancement and operational
controls. Construct a total enc	losure that captures 100% of VOC emissions from the operation
of Press #4 & #5 and evacuates t	o the existing catalytic oxidizer system. The press and
control system will comply with	all applicable regulations. (See Attachment A)
Schedule of project covered in	this application (Construction Permit Application Only)
Start of Construction <u>January 1</u>	5, 1995 Completion of Construction <u>December 31, 1995</u>
for individual components/units	em(s): (Note: Show breakdown of estimated costs only of the project serving pollution control purposes. ll be furnished with the application for operation
The cost of reconfiguring the co	llection system duct work and construction of the total
enclosure to include the supply	air and control system is approximately \$500,000. Final
cost will be determined after co	mpletion of detailed engineering. No changes to the
existing oxidizer is required.	·
Indicate any previous DER permit point, including permit issuance	ts, orders and notices associated with the emission e and expiration dates.
Press #4: AC16-093347 issued 2/	12/85; expired 3/31/86
Press #5: AC16-259725 issued 12	/1/94; expires 5/15/95

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Flo

в.

С.

D.

_	24
Ε.	Requested permitted equipment operating time: hrs/day_24 ; $days/wk_7$; wks/yr_52 ;
	if power plant, hrs/yr; if seasonal, describe: Normal operation of the equipment is
	3 shifts, 5 to 7 days per week, 52 weeks per year, with projected 20% downtime for
	cylinder changes, re-webbing, maintenance, clean up, etc.
F.	If this is a new source or major modification, answer the following questions. (Yes or No
	1. Is this source in a non-attainment area for a particular pollutant?
	a. If yes, has "offset" been applied?
	b. If yes, has "Lowest Achievable Emission Rate" been applied?
	c. If yes, list non-attainment pollutants.
	 Does best available control technology (BACT) apply to this source? If yes, see Section VI.
٠	 Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII.
	4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?
	5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?
١.	Do "Reasonably Available Control Technology" (RACT) requirements apply to this source?
	a. If yes, for what pollutants?
	b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.
	Attach all supportive information related to any answer of "Yes". Attach any justifi-

cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

. Raw Materials and Chemicals Used in your Process, if applicable:

	Cont	aminants	Utilization			
Description	Type	% Wt	Rate - lbs/hr	Relate to Flow Diagram		
Paper	None					
Coatings	VOC	54 (Avg)	276	Presses 4 & 5		
Solvents	voc	100	324	Presses 4 & 5		

В.	Process	Rate,	i f	applicable:	(See	Section	۷,	Item 1)	
----	---------	-------	-----	-------------	------	---------	----	---------	--

l.	Total	Process	Input	Rate	(lbs/hr):		·	

2.	Product Weight	(lbs/hr):		,	
	_		 	 	

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of	Emiss	Emission ¹		Allowed ² Emission Rate per	Allowable ³ "Emission	Potent Emiss	Relate to Flow
Contaminant	Maximum lbs/hr	Actual T/yr	Rule 17-2	lbs/hr	lbs kwx hr.	T/yr	Diagram
VOC	30	99			600	1980	Press4&5
(See Atta	achment B :	for calcu	lations)				
				_			
	•						

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

^{*100%} capture and 95% destruction efficiency required by Consent Order dated November 14, 1994 (See Attachment C)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Demtrol Enclosures	VOC	100% Capture		Manufacturers Warranty
Demtrol Oxidizer	VOC	95% Destruction		Manufacturers Warranty
	·		(See Attac	hment D)
	•			

E. Fuels

		ımption*	
T-y-p-e(-B-eS-p-e-c-i-f-i.c.)	avq/hr-	max./hr	Maximum Heat Input (MMBTU/hr)
Natural Gas			
(Press #4 & #5 Combine)	0.0067	0.0092	11.2 (At start-up)
Control Device	0.0027	0.0045	6.0
*Units: Natural GasMMCF/h	r; Fuel Oilsgal	lons/hr; Coal, woo	d, refuse, otherlbs/hr.
Fuel Analysis:			
Percent Sulfur:		Percent Ash:	-0-
Density:			,
Heat Capacity: 1042 BTU/C	CF BTU/1	. b	BTU/gal
Other Fuel Contaminants (wh	ich may cause air	pollution):	
F. If applicable, indicate	the percent of f	uel used for space	heating.
Annual Average		Maximum	
G. Indicate liquid or solid	d wastes generate	d and method of dis	sposal.
	•		

H. Emissi	ion Stack G	eometry and	Flow Cha	aracteri	stics (Pr	ovide	data for e	ach stack):
Stack Heig	jht:39	<u> </u>	· · · · · · · · · · · · · · · · · · ·	ft.	Stack D.i	amete	r: <u>4.</u>	17	ft.
Gas Flow R	Rate: 30,86	68ACFM	20,000	DSCFM	Gas Exit	Temp	erature:	358	°F.
Water Vapo	or Content:	Varies		&	Velocity	:	37.73		FPS
		SECT	ION IV:	INCINER	ATOR INFO	RMATI	ON		
Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type (Garba	ge) (Path	IV olog- al)	Type V (Liq.& Gas By-prod.)	(Solid B	VI y-prod.)
Actual lb/hr Inciner- ated			-						
Uncon- trolled (lbs/hr)			_						
Descriptio	n of Waste								
	ht Incinera				Design	п Сара	acity (lbs/	hr)	
Approximat	e Number of	Hours of	Operation	per da	у	day/	wk	wks/yr	
	er				·	.,			
	ructed				el No				
		·			Y				
·		Volume (ft) ³		elease /hr) .	Туре	Fuel	BTU/hr	Temperat (°F)	
Primary C	hamber								
Secondary	Chamber								
Stack Heig	ıht:	ft.	Stack Dia	mter: _			Stack T	emp	
Gas Flow R	ate:		_ACFM		DS (CFM* \	/elocity: _		FPS
	more tons p foot dry g					emissi	ions rate i	n grains p	er stan-
Type of po	llution con	trol devic	e: [] C	yclone	[] Wet S	crubt	per [] Af	terburner	
	•		[]0	ther (s	pecify)				

							,					
Ultimate ash, etc.	of	any e	ffluen	t other	than	that	emitted	from	the	stack	(scrubber	water
										2		
	 			-								

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

- 1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
- 2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
- 3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
- 4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
- 5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (l-efficiency).
- 6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
- 7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
- 8. An 8 1/2" \times 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

	SECTION VI: BEST AVA	AILABLE CONTROL TECHNOLOGY
Α.	Are standards of performance for new sapplicable to the source?	tationary sources pursuant to 40 C.F.R. Part 60
	[] Yes [] No	
	Contaminant	Rate or Concentration
	<u> </u>	
В.	Has EPA declared the best available coyes, attach copy)	ontrol technology for this class of sources (If
	[] Yes [] No	
	Contaminant	Rate or Concentration
	·	
-		
		_
с.	What emission levels do you propose as	best available control technology?
	Contaminant	. Rate or Concentration
	· · · · · · · · · · · · · · · · · · ·	<u> </u>
D.	Describe the existing control and treat	ment technology (if any).
	1. Control Device/System:	2. Operating Principles:
	3. Efficiency:*	4. Capital Costs:
*E>	xplain method of determining	
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	5.	Useful Life:		6.	Operating Costs:						
	7.	Energy:		8.	Maintenance Cost:	·					
	9.	Emissions:									
		Contaminant			Rate or Concentration						
		·					_				
					·		_				
	10.	Stack Parameters		-			_				
	a.	Height:	ft.	b.	Diameter:	ft.					
	с.	Flow Rate:	ACFM	d.	Temperature:	°F.					
	·e.	Velocity:	FPS								
Ε.		cribe the control and treatment additional pages if necessary).	techn	olog	y available (As many typ	es as applicable	е,				
	1.										
	а.	Control Device:		ь.	Operating Principles:						
	c.	Efficiency: 1		d.	Capital Cost:						
	е.	Useful Life:		fø	Operating Cost:						
	g.	Energy: ²		h.	Maintenance Cost:						
	i.	. Availability of construction materials and process chemicals:									
	j.	. Applicability to manufacturing processes:									
	k.	Ability to construct with contr within proposed levels:	ol de	vice	, install in available sp	pace, and operat	: е				
	2.				,						
	a.	Control Device:		ь.	Operating Principles:						
	с.	Efficiency: 1		d.	Capital Cost:						
	е.	Useful Life:		ŕ.	Operating Cost:						
	g .	Energy: ²		h.	Maintenance Cost:						
	i.	Availability of construction ma	terial	s an	d process chemicals:						
l _{Ex} 2 _{En}	plai: ergy	n method of determining efficiend to be reported in units of elect	ey. trical	рож	er – KWH design rate.						

Applicability to manufacturing processes: j. Ability to construct with control device, install in available space, and operate within proposed levels: 3. Operating Principles: Control Device: b. 8. Efficiency: 1 d. Capital Coat: c. Useful Life: f. Operating Cost: е. Energy: 2 Maintenance Cost: h. g. Availability of construction materials and process chemicals: i. Applicability to manufacturing processes: j. Ability to construct with control device, install in available space, and operate within proposed levels: 4. Control Device: Operating Principles: а. Efficiency: 1 Capital Costs: c. Useful Life: Operating Cost: e. Energy: 2 Maintenance Cost: q. Availability of construction materials and process chemicals: i. Applicability to manufacturing processes: Ability to construct with control device, install in available space, and operate within proposed levels: Describe the control technology selected: Control Device: Efficiency: 1 1. 2. Capital Cost: 4. Useful Life: 3. Energy: 2 Operating Cost: 6. 7. Maintenance Cost: 8. Manufacturer: Other locations where employed on similar processes: a. (1) Company: Mailing Address: (4) State: (3) City:

²Energy to be reported in units of electrical power - KWH design rate.

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¹Explain method of determining efficiency.

F.

(5) Environmental Manager:	
 (6) Telephone No.:	
(7) Emissions: ¹	
Contaminant	Rate or Concentration
(8) Process Rate: 1	
b. (1) Company:	
(2) Mailing Address:	
(3) City:	(4) State:
(5) Environmental Manager:	
(6) Telephone No.:	
(7) Emissions: 1	
Contaminant	· Rate or Concentration
	•
(8) Process Rate: 1	
10. Reason for selection and des	scription of systems:
Applicant must provide this informa available, applicant must state the	4 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
SECTION VII - PREV	'ENTION OF SIGNIFICANT DETERIORATION
A. Company Monitored Data	
lno. sites	TSP()_ SD ² * Wind spd/dir
	/ / to / / onth day year month day year
Other data recorded	:
Attach all data or statistical su	
*Specify bubbler (8) or continuous (C). · · ·
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	a. Was	instrumentation EPA referenced or its equivalent? [] Yes [] No	
	b. Was	instrumentation calibrated in accordance with Department procedures?	
	[]	Yes [] No [] Unknown	
3.	Meteorol	ogical Data Used for Air Quality Modeling	
	1	Year(s) of data from / / to / / month day year month day year	•
	2. Surf	ace data obtained from (location)	
	3. Uppe	er air (mixing height) data obtained from (location)	
	4. Stab	oility wind rose (STAR) data obtained from (location)	
:.	Computer	Models Used	
	1	Modified? If yes, attach descri	ption.
	2	Modified? If yes, attach descri	ption.
		Modified? If yes, attach descri	
	4.	Modified? If yes, attach descri	ption.
		opies of all final model runs showing input data, receptor locations, an	
).	Applican	ts Maximum Allowable Emission Data	
	Pollutan	t Emission Rate	
•	TSP	grams/sec	
	S 0 2	grams/sec	
: .	Emission	Data Used in Modeling	
	point so	ist of emission sources. Emission data required is source name, descripurce (on NEDS point number), UTM coordinates, stack data, allowable emial operating time.	
٠.	Attach a	ll other information supportive to the PSD review.	
ì.	ble tech	the social and economic impact of the selected technology versus other a hnologies (i.e., jobs, payroll, production, taxes, energy, etc.). nt of the environmental impact of the sources.	pplica- Include
۱.		cientific, engineering, and technical material, reports, publications, d other competent relevant information describing the theory and applica	

2. Instrumentation, Field and Laboratory

the requested best available control technology.

ATTACHMENT A Drawings

- #1. Plot Plan Showing Location Of Facility (8 1/2" X 11")
- #2. 1st Enclosure Exhaust Schematic (36" X 24" blueprint)
- #3 2nd Enclosure Exhaust Schematic (36" X 24" blueprint)
- #4. Preliminary Enclosure Layout (36" X 24" blueprint)







